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## *Keyworth Says Too Much Red Tape*

## White House Studies Easier Rules for R&D Funding

The White House Science Office is organizing a high-level study aimed at reducing the obstacle course for researchers seeking government money. The study will be chaired by an old Reagan friend, David Packard, Chairman of Hewlett-Packard, and it will look at some of the entrenched, and maddening, customs of the grant economy, including its little regard for past performance and preference for short-term awards.

The study was disclosed last week by Presidential Science Adviser George A. Keyworth at a hearing that the House Science and Technology Committee held on money problems in university research. He later told SGR that the study, still being organized, will start soon, will take about six months, and is expected to produce specific recommendations. The co-Chairman will be D. Allan Bromley, Professor of Physics at Yale, and a "small membership" will be drawn from the White House Science Council and elsewhere.

In a prepared statement for the hearing, Keyworth

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said the study will examine "the effects on research productivity of the uncertainties and red tape involved in funding. While we have no intention of even suggesting an entitlement program for research," he continued, "neither do we see much sense in forcing the most productive researchers and teachers to waste so much of their time playing the grantsmanship games.

"Some possibilities have been suggested and should be looked at," Keyworth said. "They include multi-year funding cycles in Congress; longer-term project grants from the agencies; large, flexible grants to institutions instead of individual project grants; even research support for outstanding individuals based on a history of performance, rather than on a research proposal."

Raising the possibility of new sources of research support for universities, Keyworth said that the Packard Committee will also look into whether government departments that utilize science and technology "have special responsibilities, of the kind that NSF does, to help maintain the health of universities."

And he revealed his sympathy for universities concerned by pressures from the loony wing of the Administration to restrict the access of foreign students and

faculty to advanced research on American campuses. "Since I know the White House Science Council members recognize the tremendous importance to US university vitality of foreign students and teachers, I would hope the group would consider positive ways to encourage and retain them in this country—as opposed to that sentiment that would limit the access of the best foreign intellects to our universities."

In regard to the sensitive but currently quiescent issue of indirect costs for government-supported research in universities, Keyworth said that his office has organized a "staff working group" to conduct a study requested in February by Health and Human Services Secretary

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## In Brief

Guess which federal department has been most responsive to the Administration's urgings for raising the scientific quality of research in inhouse labs and de-bureaucratizing their personnel practices? White House sources tell SGR that, to their surprise, it's the Department of Agriculture, many of whose research programs have long been criticized as backward and out of touch with important trends in the life sciences. Recommendations for shaking up the national labs of all departments were submitted to the White House Science Office in May 1983 by a committee chaired by David Packard, Chairman of Hewlett-Packard. It is claimed that President Reagan sat through a one-hour briefing on the Packard Report and gave it his approval.

The National Academy of Sciences retains its position as one of the most durable outposts of female exclusion among major institutions on the American landscape. Of 60 new members elected to the Academy last month, four are women. Their addition to the self-perpetuating Academy raises the female membership to 44 in a total membership of 1428. Since the Academy's founding in 1863, it has elected a total of 49 women.

Your Defense Dollars at Work: As a spur to thrift, the House Armed Services Committee has cut \$10 million from the Air Force's request for \$46 million for telephone services after noting that "auditors found employees calling a long-distance 'dial-a-porn' service. These calls cost \$300,000 annually," the Committee noted. It described the Air Force's control over telephone usage as "lax or non-existent."

## US Academy and Soviets to Discuss Renewal of Scientific Ties

A delegation from the National Academy of Sciences will visit Moscow in June to discuss restoration of bilateral contacts that the Academy severed in protest against the Afghanistan invasion and the persecution of Andrei Sakharov.

The visit was announced May 1 at the NAS annual meeting by President Frank Press, who will head the delegation. Press said the discussions will "explore new modes of interaction between the American and Soviet scientific communities."

Referring to regional meetings with Academy members over the past year, Press said, "If there is any message that we have received with great clarity from our membership, it is that in these troubled times, it is better that scientists keep talking, raising issues of concern, as well as exploring areas of fruitful cooperation."

It was later explained that the decision to talk to the Soviets doesn't mean any less concern about the original causes of the chilled relationship; rather, it reflects an increased concern about the arms race

and greater tensions in Soviet-American relations.

Though reduced, relations between the NAS and its Soviet counterpart have continued. Last week, for example, a delegation from the Soviet Academy of Sciences met with the NAS's Committee on International Security and Arms Control. The meetings, which are closed and unofficial, alternate between Moscow and Washington.

For reasonably deciding that a changed situation warrants exploration of a new approach, NAS was rewarded with a vapid and disapproving *Washington Post* editorial. Granting that, as private citizens, American scientists "can resume exchanges for anything they like, say, to drink genuine Russian borsch," the editorial asked, "Is it now worth defaulting on Afghanistan, Sakharov and the other issues of original and still worthy protest . . . in order to pursue these highly limited exchange relationships? We think not."

All that for exploring the possibility that something useful might come out of talking to the Russians.

## White House Review

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Margaret M. Heckler. But the leisurely mobilization of that study of indirect costs, which was unheard of at Keyworth's office as recently as April (SGR Vol. XIV, No. 7), seems to suggest that the White House Science Office is not inclined to stir the issue again.

In his prepared statement, Keyworth seemed to endorse the standard university position that they deserve all they're getting in indirect costs. "As we've seen," he said, "federal actions can lead universities to incur substantial obligations that they might otherwise have avoided. In fact, those schools with large research programs, many of which have their origins in federal programs, also have much higher ongoing expenses just to maintain their infrastructure."

In response to questions, he said indirect costs "was as frustrating an issue as any that has been before" the White House Science Council. Little or nothing has been done about changing the system of indirect-cost payments, he said. "But at this time, we ought to look

forward . . . and not [be] griping at the universities, not griping at the National Institutes of Health . . . . We should look forward to the means we can take to restore university [financial] health, but introduce means to provide incentives for universities to control indirect costs . . . . We must approach it in a partnership, and not in an adversarial way."

In response to other questions from the Committee, Keyworth said he didn't think that the federal government would return to "a dominant" role in providing money for construction of university laboratory buildings.

Asked whether he sees "any disadvantages" in the peer-review system, Keyworth suggested that it stumbles when funds are very tight. At present, NIH supports about 30 percent of approved applications. But in a situation where only 15 percent could be funded, he said, "I think the peer-review system would be confronted with some challenges that it probably is incapable of rationally carrying out . . . . And I don't think the peer review system is directly related to national needs and objectives in other sectors of society."

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## OTA and a Think Tank Take Dispute to a Trial

A thriving think-tank industry regularly feeds the federal government's boundless appetite for studies and reports on almost every conceivable topic. But what happens when the agencies buying this stuff feel they're getting shoddy work?

As both gossip and a perusal of the literature suggest, low-quality work is no rarity in the consulting business. But according to the grapevine, rather than raise doubts about their own skills in buying research, disappointed program officers of the federal agencies often will quietly ask for a rewrite and hope for the best. More often, however, they will simply make do with the product and grimly remember that contractor when the next bid comes in—which makes noteworthy some unusual litigation that recently provided a rare example of open rejection and a look at the innards of the consulting relationship.

The case involved one of Washington's big buyers of consulting services, the Congressional Office of Technology Assessment (OTA), which contracts for at least 100 outside studies a year, and one of the producers of such work, the Washington office of SMC Management Technology, Inc., a division of the conglomerate Science Management Corporation, of New Jersey.

Disappointed in February 1983 with SMC's first draft report from a \$40,000, four-month study of programmable automation, OTA declared SMC in default. It did so, however, on the grounds of several days' tardiness in delivery of the first draft, rather than poor quality, which is considerably more difficult to establish. When SMC refused OTA's offer of partial payment, the two parties looked around for an adjudicator and settled on the three-member Board of Contract Appeals at the Department of Energy.

### **Engineer vs. Two Lawyers**

With OTA represented by two staff attorneys, General Counsel Susan Carhart and an associate, Lisa Raines, and SMC by the non-lawyer PhD engineer who managed the project, SMC Vice President Robert M. Hershey, the hearing meandered through six days of testimony last August. On March 14, the Board ruled that the tardiness was inconsequential and the draft report, though disappointing to OTA, was "not so inadequate as to justify the determination for default." SMC came out of the case with payment for the work actually submitted to OTA—for a total of \$28,000.

The hearing opened with harsh testimony about SMC from Marjorie S. Blumenthal, Project Manager of a major OTA study on automation and employment, of which the SMC study was a very small part. [A 471-page final report of the overall study was published May 10—see *In Print*, Page 7]. Blumenthal testified that, in bidding for the contract, SMC stated it had produced a

report on robotics for the Electric Power Research Institute. She said she told SMC she found that report "superficial and anecdotal." OTA preferred "academic and professional sources over trade associations." According to Blumenthal's testimony, SMC replied that the robotics report was written to meet the needs of another client, EPRI, and that the report for OTA would be tailored to OTA's needs.

Staff members later explained to SGR that OTA, which often feels the impatience of Congressional committees which order up studies, was characteristically in a hurry, and was attracted by SMC's presence in Washington and previous involvement with the subject. Also, a mail survey would be involved, and SMC had experience with that kind of work.

On November 8, 1982, SMC got the contract, which called for it to produce a "succinct primer" on "the range and elements of programmable automation," and an inventory of foreign and domestic research in this field, for which SMC was to prepare a questionnaire. The contract specified a delivery and payment schedule as follows: Outline and inventory, December 6, 1982, \$8000; draft report, February 7, 1983, \$20,000; final report, February 28, 1983, \$12,000. Hershey served as manager of the project for SMC, a project director was designated and two SMC staff members were assigned as authors. The outline and inventory were delivered on December 8, and SMC was paid \$8000. Then the trouble began.

### **"Relatively Shallow Research"**

Blumenthal didn't think much of the questionnaire prepared by SMC, and she was concerned by SMC's request late in January for extending the February 7th milestone to February 18 and, later, to February 25. Blumenthal asked OTA's contracting officer to extend the deadline to the 25th. But the day after doing that, she wrote an internal memo that used "skimpily" to describe SMC's staffing of the project, and said the questionnaire "suggests relatively shallow research and analysis." On February 10, OTA's General Counsel, Susan Carhart, told SMC that if the draft wasn't delivered by the extended February 18th deadline, SMC would be considered in default.

On that date, SMC delivered about half of each of the two parts of the study and requested a few more days to complete the rest. But on the basis of what OTA had received, Blumenthal and her colleagues were not in an obliging mood. When the balance of the draft, totaling over 300 pages, was ready a few days later, they refused delivery.

Describing what OTA had received of the draft, Blumenthal testified, "My overall impression was that it

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## ... Report "Not So Inadequate," Board Decides

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was superficial and vague and uneven in its discussion, and I was very unhappy with it." The draft, she said, contained "many words without content" and did not "communicate to me anything more than I could have written a couple of years ago off the cuff, just sitting there without any references." She added that the report lacked footnotes and dates, and that the events it described "could have been 10 years ago when it was the first application of a robot in a company or . . . last month." She quoted Fred W. Weingarten, OTA's Program Manager for Communication and Information Technology, as saying that the draft "lacks intellectual spine."

Under cross-examination by Hershey, Blumenthal explained that the \$40,000 figure for the work was based on "\$8000 per professional person month." OTA, she said, aimed to get as much "portfolio diversification" as it could for its money. Hershey then stated that SMC had figured the project would cost \$50,227 to carry out, but was receiving only \$40,000 under the contract. There's "a certain amount of squeezing," he said. (Left out of the discussion was the sales appeal that think tanks derive from having done work for the prestigious OTA, even though the rates are low and the deadlines murderous.)

### Report "Technically Accurate"

However colorfully OTA described its grievances with SMC's work, the issue was decided by the low-keyed testimony of an expert witness summoned by SMC, William Gevarter, a NASA robotics specialist on assignment at the National Bureau of Standards to write a report on robotics and artificial intelligence. Gevarter is the author of extensive works on robotics—chunks of which had been included verbatim in SMC's draft report for OTA. (Upon finding them, Blumenthal testified, "I was appalled," because she hadn't expected the contractor to make heavy use of previously published work. She added that Gevarter had once visited OTA "seeking employment" on the automation study.)

Gevarter didn't express enthusiasm for the draft report, but, in response to questions, described it as "technically accurate." The basic document, he said, could have profited from being boiled down from 300 to 60 pages, with some of the excised material relegated to appendices. When the Chairman of the Appeals Board, John B. Farmakides, asked whether the draft "reflects the state of the art?" Gevarter replied, "I think it does." To which he added that "you could take any individual section of it and . . . tear it apart, or ask it to be enlarged, or updated, or fixed up, and so on."

OTA's brief described the report as "superficial and

out of date," containing "numerous inaccuracies," and as an "encyclopedia of unorganized data." Nonetheless, OTA based its claim of default on tardiness, rather than the more-difficult-to-prove ground of poor quality. Writing for the unanimous three-member Board, Chairman Farmakides wouldn't buy it.

### "Not So Inadequate"

The time extensions agreed to by OTA, brief though they were, did not suggest that time was of the essence, the Board's decision stated. "Had OTA been satisfied with the quality of the draft on March 1, 1983," it continued, "there would have been no default determination. Thus, the Board finds that the quality of the draft report . . . became the critical reason for the default action—not whether it was delivered timely."

The Board then addressed the issue of quality, finding ambiguity, first of all, in the contract's use of the term "succinct primer," and deeming it a failing that undercuts OTA's complaints of unacceptable performance. It also found that the contract's "description of the report SMC was to have produced is so comprehensive that it is virtually impossible to extract any specific criteria by which the quality of the draft may be determined within the terms of the contract."

"No doubt the draft could have been better," the Board concluded, "and certainly it was a disappointment to OTA; however, under the circumstances, it was not so inadequate as to justify the termination for default."

On a counterclaim by SMC asking for extra compensation for developing and revising the questionnaires, the Board ruled against SMC.

The final legal effect of the decision was to terminate the contract under the standard provision in almost all federal contracts allowing termination at the "convenience of the government"—which permits government agencies to get out of contracts for just that reason and nothing else. Unlike a default termination, there's no opprobrium involved in termination for convenience.

In addition to the first payment of \$8000 for an outline, SMC got the \$20,000 due for providing a draft, but, with the contract terminated, did not go on to the third and final stage that specified \$12,000 for the final report.

Before the case went to a hearing, OTA first offered a final payment of \$5000, with SMC keeping whatever it had produced and being free to sell it elsewhere, or \$10,000, with OTA taking title to the work done to that date. SMC refused and insisted on a hearing. Given Washington lawyer rates of \$100 to \$200 an hour, the prospect of a weeklong hearing, along with preparation time, would normally have discouraged that course.

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## AIDS: Politics Takes Dubious Share of Credit

Metaphoric exuberance may be excused in our Secretary of Health and Human Services, Margaret M. Heckler, who has proudly proclaimed that the "arrow" of AIDS research has landed "only two or three rings from the bull's-eye," and that scientists will keep "the research and investigation throttle on the floor."

In the press and in Congress, her Department was repeatedly charged last year with an inexcusably slow response to Acquired Immune Deficiency Syndrome, which has been fatal in nearly half of the 4000 cases diagnosed since 1981. The charge was unfair, she triumphantly declared to a jammed press conference last month, for researchers in her Department had finally identified a prime microbial suspect as the cause of the puzzling disease. And, she insisted, their discovery was produced by a step-by-step, deliberate approach that impatient and ill-informed critics mistook for penny-pinching dawdling. What are we to make of this claim of vindication?

In most instances it is difficult to argue with success, but the AIDS episode is not one of them. The working levels of the federal health-research establishment promptly recognized the unusual character and menace of AIDS, and got to work on it with whatever resources they could assemble. In September 1981, just a few months after the first cases were identified, the National Cancer Institute convened an exploratory conference, and began the slow job of enlisting some of NIH's forces in a research effort in which the Centers for Disease Control was already playing its traditional tracking role.

The fact is, however, that NIH is designed for moving deliberately rather than quickly when it comes to taking on new research problems. Furthermore, neither NIH nor CDC has any loose cash lying around and had no means for quickly getting any, since their political bosses refused to provide special funds for AIDS research. Told to scavenge what they could from existing budgets, they did just that. At CDC, money for AIDS

### OTA Case

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SMC's Hershey, however, chose to argue the case himself. SGR tried to talk to him about the litigation, but all he would say was, "You have the record there."

OTA's Administrative Officer, Thomas McGurn, says the agency renegotiates perhaps two or three contracts a year, but that he cannot recall any other contract that has gone to a hearing.

(Single copies of the decision are available without charge from the Board of Contract Appeals, US Department of Energy, 4040 North Fairfax Dr., Arlington, Va. 22203; tel. 703/235-2700; specify EBCA No. 289-5-83 OTA.)—DSG

### DOE Reviewing R&D Policy

A major review of the Department of Energy's policies for international collaboration on research has been assigned to DOE's Energy Research Advisory Board by DOE Secretary Donald P. Hodel.

In a letter to Chairman Ralph S. Gens, Hodel asked the Board to examine criteria for choosing international collaboration or competition in R&D programs; to assess how the US compares with other nations in energy research, and to advise the Department on how to "obtain the views of the US private sector" concerning international collaboration on "technologies that have significant commercial potential." Hodel asked for a report in May 1985.

He also asked the Board for a report by next November on domestic and foreign research on technologies for burning coal.

Gens, who is the newly elected Chairman of the 25-member Board, was formerly Chief Engineer of the Bonneville Power Administration, of which Secretary Hodel was the Administrator.

research was diverted from ongoing venereal disease research programs. At NIH, various basic research studies into cancer and other diseases were reoriented to accommodate AIDS research. Meanwhile, Mrs. Heckler declared that AIDS was her Department's "number one priority," but apparently couldn't persuade the White House to let loose some extra money.

Around this time last year, after researchers from NIH and CDC had quietly told Congressional investigators that important work was being neglected for lack of money, the Administration finally stopped resisting Congressional efforts to provide additional funds. But just prior to making that reversal, Assistant Secretary for Health Edward Brandt had insisted to Congress that sufficient money was available; a month later, as politically important homosexual constituencies in New York and California applied heat to their Congressional delegations, the message got through to Washington, and Brandt submitted a request for an additional \$12 million.

The Administration repeatedly demonstrated such great confusion on budgeting for AIDS research that Rep. Silvio O. Conte, of Massachusetts, the ranking Republican on the NIH Appropriations Subcommittee, could no longer control his exasperation when the NIH bill came to the floor last year. "I might say that I am personally very distressed with this situation, where the Administration comes before the Subcommittee and states time after time that sufficient resources are avail-

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## Keyworth Assails Caution on Biotechnology

Continuing to enliven an oratorical genre previously limited mainly to ceremonial goodwill and pleasantries. Presidential Science Adviser George A. Keyworth II has questioned the good sense of some of those who disagree with him and he has also put in a kind word for his own prophetic powers. His predecessors in the advisory role shunned combat and spoke only kindly in public.

Addressing the Annual Users Meeting at the Fermilab, Batavia, Ill., on April 27, Keyworth titled his talk, "SSC: The Next Big Step,"—which derives from the high-energy physics community's agitations for a colossal new accelerator, the Superconducting Super Collider. Of the multi-billion-dollar SSC dream, Keyworth merely repeated what he's said before: It's so big and expensive that a new organizational form will be required to manage its construction and operations, broad public support will be required to get the money for it, and foreign collaboration is being sought.

But, just a month short of the third anniversary of his appointment to the White House post, Keyworth had a lot of things on his mind and chose to range across a variety of issues remote from the big accelerator.

"By all rights," he said, "if any industry ought to be dominated by the US, it's biotechnology," which was developed from "billions of dollars of [taxpayer-financed] basic research in molecular biology . . . . But what's the reality?" Keyworth asked. "From what I read in the papers," he continued, "we seem to be working overtime to find reasons not to exploit this knowledge . . . . So, even in the face of rising biotechnology industries in other countries, a lot of people in our society seem more intent on handicapping our own efforts with regulatory burden than they are intent on stimulating biotechnology's growth . . . ."

"My own opinion," Keyworth said, "is that much of today's debate has gone far, far beyond questions of

## AIDS

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able, and then changes its tune at a time when it is very difficult for the Committee to consider this new position. Now that borders on not dealing with the Subcommittee in good faith, and I for one must indicate my disappointment with the actions of the Department on this issue."

As a scientific and medical problem, AIDS is still in midstream—cause suspected but cure still unknown. As a political spectacle, however, the tale is complete and embodies a common theme in public affairs. Rely on the public's short memory and grab credit for favorable events.—DSG

## GE's Schmitt Heads NSF Bd.

Roland W. Schmitt, General Electric Senior Vice President for Corporate Research and Development, was elected Chairman of the National Science Board last week. The Board, comprising 24 members, mainly from academe and high-tech industry, is the policy-making body of the National Science Foundation. Schmitt succeeds Lewis M. Branscomb, IBM Chief Scientist and Vice President, who served two two-year terms as Chairman.

Only two-thirds of the Board's regular complement of members took part in the vote. Eight of the appointments expired on May 10, but replacements, reported to be in the mill, did not make it through the White House clearance process in time to take part in the election.

legitimate caution. In general, we pay too much heed to the professional critics of new technologies—the people with ideological axes to grind—and not nearly enough to our own common sense."

Referring to the splash he made in 1981 when he said the US research enterprise would have to be selective about using its resources, Keyworth told his Fermilab audience, "I set off alarms that rang for years. I was accused of suggesting that the US was going to withdraw from its role as world leader in science. Apparently I broke a rule: I wasn't supposed to admit that we scientists can and do, in fact, establish priorities for research to be supported.

"Viewed from 1984," Keyworth said, "it's hard to remember what all the commotion was about. The fact is that over the past three years, we have exercised more selectivity in spending federal funds on science—and by doing so we established the basis for becoming even stronger . . . ."

"Well, what a difference a year makes," Keyworth declared. "The US high-energy physics community has since put its affairs largely in order. We now enjoy and are in a position to profit from a relatively strong sense of unity, with a consensus on priorities for new experimental facilities. Presented at last with that consensus, the Administration has responded enthusiastically" with generous budgets.

Keyworth stressed that the proposed SSC accelerator will be supported, too, if it appears to be scientifically worthwhile. But, reverting to his often-stated theme that, pre-Reagan, the federal science budget had taken on some of the functions of a welfare program, he added, "SSC can and should be justified as a means to achieve excellence, not as a logical next step in an entitlement program."

## Members Named for Academy Science Roundtable

A membership totaling 13 from in and around the scientific community has been announced for the Council of the University-Government-Industry Research Roundtable, the National Academy of Sciences' newest creation for looking after science's interests in Washington.

Created by Academy President Frank Press as part of his broadranging effort to rejuvenate the Academy and expand its influence, the Roundtable represents the classiest kind of Washington lobbying operation—an assemblage of mandarins from powerful homebases. An Academy announcement quotes Press as saying that the Roundtable "offers an opportunity to address questions bearing on the health of American science in a manner not previously available." Funds for the Roundtable have been provided by the Alfred P. Sloan Foundation and the Andrew W. Mellon Foundation.

The Council will be chaired by Dale Corson, President emeritus of Cornell University. Corson headed the Academy panel that in 1982 produced *Scientific Communication and National Security* (SGR Vol. XII, No. 17), which was unsuccessfully aimed at de-

flecting the Reagan Administration's accelerating efforts to apply security restrictions to some academic research. Press will be a member on an ex officio basis, and Don I. Phillips is the Executive Director. In addition to Corson, members of the Council are:

William G. Anlyan, Chancellor for Health Affairs, Duke University Medical Center

Kenneth J. Arrow, Professor of Economics, Harvard

Marvin Cohen, Professor of Physics, Caltech

Edward G. Jefferson, Chairman of the Board, DuPont

Sol Linowitz, Washington wheeler-dealer attorney

George E. Pake, Vice President, Xerox

Alexander Rich, Professor of Biophysics, MIT

Howard A. Schneiderman, Vice President, Monsanto

Harold Shapiro, President, University of Michigan

Robert L. Sproull, President, University of Rochester

Linda S. Wilson, Vice Chancellor for Research, University of Illinois, Urbana

Listed as "Participating Federal Officials" are:

Richard D. DeLauer, Undersecretary of Defense for Research and Engineering

George A. Keyworth, Presidential Science Adviser

Edward A. Knapp, Director of the National Science Foundation

Alvin W. Trivelpiece, Director of the Office of Energy Research, Department of Energy

James B. Wyngaarden, Director of NIH.

## In Print: OTA Issues Automation and Work Study

*Computerized Manufacturing Automation: Employment, Education, and the Workplace*, two years in preparation by the Congressional Office of Technology Assessment, concludes that education and other institutions are poorly prepared for coping with the immense impact that new technologies will have on the job market. The study is likely to serve as a basic document in Congressional deliberations.

(471 pages, \$14, Superintendent of Documents, USGPO, Washington, DC 20402; specify stock no. 052-003-00949-8.)

*Science in the Streets, Report of the Twentieth Century Fund Task Force on the Communication of Scientific Risk*, the product of what was apparently a lot of hand-wringing and wrangling by a large cast of scientists, journalists, academics and others. The foreword says they managed to agree that "there must be no attempt, public or private, to suppress media coverage of risk," and that journalists could profit from better understanding of risk assessment and statistical methods. But it adds that "the Task Force could not reach the consensus they had originally sought." The report includes a dissent by Task Force Chairman Harrison E. Schmitt, ex-astronaut-Senator, who argued for more restraint and balance in news reports of technological risk.

(97 pages, \$7.50, Priority Press, 41 East 70th St., New York, NY 10021.)

*OECD Science and Technology Indicators: Resources Devoted to R&D*, for science-policy fans, an essential compilation from the 24-nation Organization for Economic Cooperation and Development, shows spending trends for governmental and industrial R&D from 1969 to 1981, with breakdowns by civil and defense sectors.

(378 pages, \$27, from OECD sales agents around the world; in US—OECD Publications and Information Center, Suite 1207, 1750 Pennsylvania Ave. Nw., Washington, DC 20006-4582; tel. 202/724-1857.)

*Science, Technology, and American Diplomacy 1984*, fifth annual edition of a report that the White House deems a nuisance but that it's required by statute to submit to the Congress. The chairmen of the House Science and Technology Committee and the House Foreign Affairs Committee state in a foreword that the report "continues to gloss over a useful discussion of the adequacy of funding for international science and technology activities." But, as they acknowledge, it provides a lot of information about US involvement in international R&D activities, research-related posts maintained abroad, and so forth.

(172 pages, available without charge from Science and Technology Committee, 2321 Rayburn House Office Building, Washington, DC 20515; tel. 202/225-5629.)

## House Committee Slashes Defense Science Funds

The House Armed Services Committee has taken a big chunk out of the Administration's fairly modest request for an increase in the Pentagon's spending for basic research. Though the final verdict is a long way off, the cut suggests that the political zip has gone out of DoD's design for a big scientific comeback in academe, which receives about half of DoD's basic research spending.

The budget for the coming fiscal year sought \$900 million in so-called 6.1 money (shorthand for DoD's basic-research budget account) for the three services and the Defense Advanced Research Projects Agency (DARPA). The total worked out to \$60 million more than the current 6.1 budget, in both dollars and percentage terms a mere splinter of the monumental increase—\$7.2 billion, or 27 percent—that Defense requested for research, development, testing and engineering. However, with the Defense budget now fair game on Capitol Hill, the Committee wouldn't accept the big increase or even the little one. It cut \$3.7 billion from the overall RDT&E request and, under 6.1, \$21.8 million from DARPA, \$14 million from the Navy, and \$1.8 million from the Air Force—for a total reduction of \$37.6 million in the requested 6.1 increase of \$60 million.

While the Reagan Administration has been doing a lot of drumbeating about establishing closer links between the Pentagon and basic research, mainly in universities, the extent of its financial commitment depends on how one looks at the numbers. Under Reagan, DoD's spending on development has doubled, from \$15 billion, in 1981, to \$33 billion, proposed for next year (and sure to be cut by Congress).

Meanwhile, DoD support for basic research during that same period rose from \$610 million to the \$900 million proposed for next year.

That's a lot of money, but in testimony last week to the House Science and Technology Committee, Presidential Science Adviser George A. Keyworth II noted "slow progress in rebuilding DoD's university programs." Stating that "We've done ourselves a grave disservice in the 15 years since we reined in the ability of DoD to support broad areas of research and education," Keyworth said "we can expect to see growth in that area in the next few years." But that optimism is not shared by the managers of DoD's university-support programs or the Washington representatives of the universities that receive the money. Both find that they've had to fight hard to achieve even that slow progress.

With visions of DoD catching up on the National Science Foundation as a bankroll for basic science, the big research universities have diligently lobbied to keep that 6.1 money growing. Of particular interest to them is DoD's program to provide a total of \$150 million over five years for major scientific instruments and equipment in universities. When the last Congress attempted to cut out the annual \$30 million for that program, a concerted lobbying effort brought a restoration.

Another effort like that was recommended last month by Richard D. DeLauer, Defense Under Secretary for Research and Engineering. Co-chairing the semi-annual meeting of the DoD-University Forum (SGR Vol. XIV, No. 8), DeLauer said that the 6.1 money had run into trouble in Congress, and urged universities to organize a rescue.

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